fore impossible to state at the conclusion of an attack of acute rheumatic fever or chorea that the heart was unaffected by those conditions. Heart rate may have a marked effect upon the physical signs of mitral stenosis as shown in graphic records.

The Function of the Colostrum.—Lewis and Wells (*Jour. Am. Med. Assn.*, 1922, **78**, 863) found that the blood of newborn infants, and probably of all other mammals, contains little or none of the serum protein or protein fraction known as euglobulin. This seems to be supplied chiefly by the colostrum, which differs from milk in containing a large amount of this protein secreted directly from the blood. Euglobulin is the only blood protein that appears in the colostrum, and it is the only protein fraction in which the new-born infant's blood is deficient. Evidently the colostrum is formed to provide the fetus with a supply of euglobulin for its blood, during the short period immediately after birth when proteins may be best absorbed without disintegration by digestive proteolysis. The importance of this lies in the fact that the protective antibodies of the blood are found associated with the euglobulin fraction, and that the quantity of protective antibodies found in the colostrum, the milk and the infant's blood varies directly with the euglobulin content of these fluids. Evidently the colostrum furnishes to the new-born mammal protective antibodies, which probably adds much to its capacity to resist infection in early life. If the infant does not receive colostrum it acquires euglobulin in its blood much more slowly, and is presumably in corresponding degree less resistant to infection. It is not probable that there is any equivalent substitute for human colostrum for new-born infants.

Diagnostic Value of Determining Vital Capacity of Lungs of Children.—Wilson and Edwards (*Jour. Am. Med. Assn.*, 1922, **78**, 1107) adopted a simple method and technic for the determination of the vital capacity in children from six to sixteen years of age. A normal standard of 1.93 liters per square meter of surface area was established from a study of 362 children. A plus or minus 10 per cent deviation was allowed, thus giving a normal range of from 1.74 to 2.12 liters. The vital capacity may be read at sight from a chart in liters per square meter of surface area and in percentages of normal capacity. A normal standard of 15.5 cc for each centimeter in height was also indicated as another method of relating vital capacity measurement. An analysis of some of the factors expected to influence vital capacity measurements revealed that boys show a vital capacity 6 per cent greater than girls. The extremes of age gave values at the lower and the higher limits of the normal range established. The colored race showed a definitely lowered vital capacity. Poverty, environment and social status did not seem appreciably to influence the lung capacity. Activity and athletics tended to increase the vital capacity. Malnutrition and underweight for height did not lower the vital capacity. Overweight for height revealed an apparent reduction of vital capacity per square meter of surface area. Vital capacity measurement was a fairly constant measurement. A reduction of vital capacity measurement of 15 per cent or more from the average normal standard should be taken as an index for the need of further examination and study of the child to ascertain the cause of the falling below the standard.

OBSTETRICS

UNDER THE CHARGE OF

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Pregnancy After Very Severe Disease of the Ovaries and Tubes.—In the *Zentralblatt für Gynäkologie*, 1922, No. 4, p. 139, ARNOLD describes the case of a woman, aged twenty-seven, who was admitted to hospital with bilateral salpingitis and excessive inflammation about the uterus. She was treated conservatively and examined at intervals during the next five years. These examinations showed extensive inflammation of both tubes and ovaries. The uterus was anteflexed, hard, very little movable, and there was a very considerable exudate fixing the uterus in the pelvis. On one occasion incision was made in the posterior vault of the vagina and a free discharge of pus followed, which could be traced to the right side of the pelvis. The patient was then in hospital for three weeks. At these examinations the ovaries were found prolapsed, bound down by adhesions, enlarged and very tender on pressure. So great was the exudate that the tubes could not be distinctly made out. The patient next presented herself at the hospital in the sixth month of pregnancy and desired attendance at her home in labor. She gave spontaneous birth to a living child which suffered from ophthalmia. At the last examination the uterus was movable; the adnexa seemed to be free from adhesions, and there was a scar in the posterior vaginal vault where the incision had been made.

Grape Sugar as a Stimulant to Labor Pains.—MÜLLER (*Zentralblatt für Gynäkologie*, 1922, No. 4, p. 140) has used grape sugar in 40 to 50 per cent in concentration, given in doses of 10 cc intravenously after careful sterilization, to stimulate the pains of labor. In cases where there was no mechanical obstruction to delivery but the delay seemed to arise from lack of general strength on the part of the patient an excellent result followed without injury to mother or child. In 15 cases in which this method was tried a positive result followed in 9; some effect was produced in 3, and no effect in 3. The doses first given were 10 per cent concentration, but this was increased to 50 per cent and the effect produced by this solution lasted from thirty or forty minutes to one hour. The writer calls attention to various analyses of the blood during pregnancy, showing a lack of sugar in some cases. He examined 17 patients and found the blood-sugar diminished more than one-half in these cases. It is a curious and interesting fact that extracts of the ductless glands and toxins derived from various sources, when injected in pregnant women, will produce almost similar results. This seems to result from an irritation of the sympathetic nervous system, which produces contraction in the unstriped muscle in the intestine and uterus. The merit of the sugar solution consists in the fact that it is not a poison, is entirely consumed in the body and can do no injury.